

PATENT

Case Docket No. OASBIO.001C1
Date: June 10, 2002

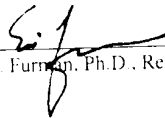
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Brown, et al.
Appl. No. : 09/931,732
Filed : August 16, 2001
For : ANTISENSE
OLIGONUCLEOTIDES
COMPRISING UNIVERSAL
AND/OR DEGENERATE
BASES
Group Art Unit : 1645
Examiner : Unknown

I hereby certify that this correspondence and
all marked attachments are being deposited
with the United States Postal Service as first
class mail in an envelope addressed to:
United States Patent and Trademark Office, P.O.
Box 2327, Arlington, VA 22202, on

June 10, 2002

(Date)


Eric S. Furman, Ph.D., Reg. No. 45,664

SEQUENCE SUBMISSION STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

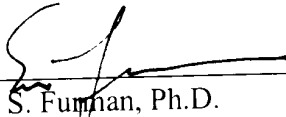
Dear Sir:

A copy of the Sequence Listing in computer readable form as required by 37 C.F.R. §1.821(e) is submitted herewith.

As required by 37 C.F.R. §1.821(f), I hereby declare that the information recorded on the enclosed disk is identical to the printed Sequence Listing in the application filed herewith. Accordingly, no new matter has been introduced.

Respectfully submitted,
KNOBBE, MARTENS, OLSON & BEAR

Date: 6/10/02


Eric S. Furman, Ph.D.
Registration No. 45,664
Attorney of Record
620 Newport Center Drive
Sixteenth Floor
Newport Beach, CA 92660
(619) 235-8550



SEQUENCE LISTING

<110> Brown, Bob D.
Riley, Timothy A.

<120> ANTISENSE OLIGONUCLEOTIDES COMPRISING
UNIVERSAL AND/OR DEGENERATE BASES

<130> OASBIO.001C1

<150> PCT/US00/09293
<151> 2000-04-07

<150> US 60/128,377
<151> 1999-04-08

<160> 30

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-6, 13-18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 7-12
<223> n = Universal or degenerate base

<400> 1
nnnnnnnnnn nnnnnnnn

18

<210> 2
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-6 13-18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 7-12

<223> n = Universal or degenerate base

<400> 2
nnnnnnnnnn nnnnnnnn 18

<210> 3
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-6, 13-18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 7-12
<223> n = universal or degenerate base

<400> 3
nnnnnnnnnn nnnnnnnn 18

<210> 4
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-6, 13-18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 7-12
<223> n = Universal or degenerate base

<400> 4
nnnnnnnnnn nnnnnnnn 18

<210> 5
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-3, 5-6, 9, 11, 13, 15-16, 18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 4, 7-8, 10, 12, 14, 17
<223> n = Universal or degenerate base

<400> 5
nnnnnnnnnn nnnnnnnn 18

<210> 6
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-3, 5-6, 9, 11, 13, 15-16, 18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 4, 7-8, 10, 12, 14, 17
<223> n = Universal or degenerate base

<400> 6
nnnnnnnnnn nnnnnnnn 18

<210> 7
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-3, 5-6, 9, 11, 13, 15-16, 18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 4, 7-8, 10, 12, 14, 17
<223> n = Universal or degenerate base

<400> 7
nnnnnnnnnn nnnnnnnn 18

<210> 8
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-3, 5-6, 9, 11, 13, 15-16, 18

<223> n = Natural or non-naturally occurring base

<221> misc_feature

<222> 4, 7-8, 10, 12, 14, 17

<223> n = Universal or degenerate base

<400> 8

nnnnnnnnnn nnnnnnnn

18

<210> 9

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature

<222> 1-3, 5-6, 9, 11, 13, 15-16, 18

<223> n = Natural or non-naturally occurring base

<221> misc_feature

<222> 4, 7-8, 10, 12, 14, 17

<223> n = Universal or degenerate base

<400> 9

nnnnnnnnnn nnnnnnnn

18

<210> 10

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature

<222> 1-3, 5-6, 9, 11, 13, 15-16, 18

<223> n = Natural or non-naturally occurring base

<221> misc_feature

<222> 4, 7-8, 10, 12, 14, 17

<223> n = Universal or degenerate base

<400> 10

nnnnnnnnnn nnnnnnnn

18

<210> 11

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 1-3, 5-6, 9, 11, 13, 15-16, 18
<223> n = Natural or non-naturally occurring base

<221> misc_feature
<222> 4, 7-8, 10, 12, 14, 17
<223> n = Universal or degenerate base

<400> 11
nnnnnnnnnn nnnnnnnn 18

<210> 12
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 12
cgaaattaa tcgactcact at 22

<210> 13
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 13
caggcccagc agcagcagca gcagcagcat ggtgggcgaa ttgcgattc gaagccctat 60
agtgagtcgt attaatttcg 80

<210> 14
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 14
ggttcctc ctcaactggg at 22

<210> 15
<211> 76
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 15
ggttcctc ctcaactggg atgatgccca gggagagctg tagcctcagg cccagcagca 60

gcagcagcag cagcat

76

<210> 16

<211> 100

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<400> 16

gggcttcgaa tcgcgaattc gccaccatg ctgctgctgc tgctgctggg cctgaggcta 60
cagctctccc tgggcatcat ccagttgag gaggagaacc 100

<210> 17

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature

<222> 7-12

<223> b = Universal or degenerate base

<400> 17

gttctcbbbb bbgagttt 18

<210> 18

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<400> 18

gttctcgctg gtgagtttca 20

<210> 19

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature

<222> 4, 7-8, 10, 12, 14, 17

<223> b = Universal or degenerate base

<400> 19

tctbccbbcb tbcbbcbt 18

<210> 20	
<211> 18	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic oligonucleotide primers	
<400> 20	18
tctcccagcg tgcgcat	
<210> 21	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic oligonucleotide primers	
<400> 21	22
ggtgccacct gtggtccacc tg	
<210> 22	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic oligonucleotide primers	
<400> 22	22
cttcacttgt ggcccagata gg	
<210> 23	
<211> 22	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic oligonucleotide primers	
<400> 23	22
gagctgcgtg tggctccga gg	
<210> 24	
<211> 26	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Synthetic oligonucleotide primers	
<400> 24	26
cgcaggatgg catggggggc ataccc	

<210> 25
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 25
gggcccggtgt gcggggta 18

<210> 26
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 6, 12
<223> n = 6H, 8H-3, 4-dihydropyrimido [4,5-c] [1,2]
oxazin-7-one

<221> misc_feature
<222> 14
<223> n = 2-amino-6-methoxy aminopurine

<400> 26
gggccngtgt gngngta 18

<210> 27
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<400> 27
cgtctggggc cgacggggg 19

<210> 28
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide primers

<221> misc_feature
<222> 7, 17
<223> k = 2-amino-6-methoxy aminopurine

<400> 28

cgtctgkggc cgacggkgg 19

<210> 29

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<400> 29

ggccgcggcg ggcggcg 18

<210> 30

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide primers

<221> misc_feature

<222> 4, 6, 9, 12, 17

<223> n = 6H, 8H-3, 4-dihydropyrimido [4,5-c][1,2]
oxazin-7-one

<400> 30

ggcngnggng gngggcg 18